SP/EA BRANCH ROUTING

Chief _____

D. Chief _____

EO. Section

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Tech Sup Section

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EAGroup (Curie Hall)

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REMARKS

FIELD DOCUMENT ROUTING AND ACTION RECORD

INSTRUCTIONS: Routing designations, either individuals or units, are to be placed in the "TO" column. Comments are to be numbered to correspond to the number in the "TO" column. Each comment is to be underlined with a line drawn across the "COMMENTS" column. Each recipient of the attached document is to place his initials in the proper space following the corresponding numbered routing. The date the document is forwarded to the next routing is to be placed in the proper column. The last routing on this sheet shall be the unit in which the basic document is to be filed. If the holding unit is other than the central files, the central file shall be the next to the last routing to insure proper control clearances. THIS DOCUMENT ROUTING AND ACTION RECORD IS TO REMAIN ATTACHED TO THE BASIC RECORD DOCUMENT AS A PERMANENT RECORD.

FROM: Chief, Engineering Staff, OC

DOCUMENT SYMBOL AND NUMBER: ENG M8-1204

DOCUMENT DATE:

ACTION SUSPENSE DATE:

TO	LOCATION	DATE FORWARDED	OFFICER INITIALS	COMMENTS
1. NOV 17 1958 OC-SP	1613 Alcott Hall	NOV 18 1958	x	SPS Intra-Office 1. Chief ____ 2. D. Ch. ____ 3. A. A. ____ 4. AF ____ 5. EA ____ 6. SA ____ 7. File ____ NOV 17 1958 Date Rec'd SPS Ea- request reply ?
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DOCUMENT PROCESSING DATA

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ABSTRACTED		
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FORM NO. 861 (SECRET) CONFIDENTIAL UNCLASSIFIED (40)

Office Memorandum • UNITED STATES GOVERNMENT

ENG M8- 1204

TO : Chief, Special Programs Staff, OC DATE: 12 November 1958

FROM : Chief, Engineering Staff, OC

SUBJECT: Audio Oscillators, IN-1 and IN-9

REF : Memo ENG 8-491 dated 30 April 1958
Memo SPM 8-765 dated 21 August 1958

1. A review of R&D Laboratory fabrication commitments indicates that we have not as yet received an operational evaluation report on the IN-1 oscillator. To facilitate our scheduling please review your requirement for this oscillator in terms of Eng 8-491 and advise as to the suitability of the prototype submitted and, if found acceptable, the quantity desired.

2. With reference to the temperature-vs-frequency stability characteristic of the IN-9 oscillator (SPM 8-765), previous temperature tests and design experience with this circuit and the unijunction transistor indicate that ± 2% is about as good as can be expected on frequency stability. Although detailed temperature data has not been run for the unit over the reduced range of -20°C to +40°C, previous tests over the wider range from -40°C to +55°C did not show a significant stability improvement in the restricted range. In addition, the tolerance spread of current production unijunction transistors is far too great to support firm stability predictions on the basis of small sample testing. The unijunction transistors now used are not straight production run items but rather are purchased with specified tolerances on certain parameters. Even so, the long term stability of units so purchased cast doubt on the advisability of seeking further stability improvement through transistor selection. It therefore appears that the stability economically feasible in the present IN-9 circuit configuration is ± 2%. On the basis of this information, please advise as to the suitability of the unit and, if suitable, the number of units required.

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